

CLAIMS

What is claimed is:

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1. A magnetic circuit for a rotating apparatus having a parallel structure or a skew structure of magnet pole pieces of magnets or armatures with respect to a shaft, comprising

a rotating shaft;

a plurality of supporters fixedly mounted in a perpendicular direction to the circumference of the rotating shaft;

a plurality of rotors rotated by attraction force and repulsion force of a magnetic field, a magnet pole piece being arranged in parallel with respect to the shaft on each end of the plurality of supporters; and

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a plurality of armatures (stators) having a coil wound on the body thereof, the coil being mounted at an interval outside the rotors and receiving induced alternate magnetic flux of the rotors, the alternate magnetic flux generated when rotated, and magnet pole pieces being arranged in parallel or in skew with the rotating shaft.

2. The magnetic circuit for a rotating apparatus as claimed in claim 1, wherein the rotors have the parallel structure or the skew structure of the magnet pole pieces of the magnets with respect to the shaft so as to be rotated by a force of a magnetic field in a parallel direction with the rotating shaft.

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3. The magnetic circuit for a rotating apparatus as claimed in claim 1, wherein the armatures have the parallel structure or the skew structure of magnet

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pole pieces of magnets or armatures with respect to the shaft, and the magnets or armatures are one of C-type, U-type, and I-type.

4. The magnetic circuit for a rotating apparatus as claimed in claim 1, wherein the magnet pole pieces of the magnets or the armatures have a parallel structure or a skew structure with respect to the shaft, and the magnets or the armatures have propellers on a supporter between the shaft and the rotors.

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5. The magnetic circuit for a rotating apparatus which comprises, the magnet pole pieces of the magnet or the armatures having the parallel structure or the skew structure with respect to the shaft and the rotors being rotated by a force of a magnetic field formed in the parallel direction with the rotating shaft and thus minimizing the lateral vibration of the shaft under rotation.

6. A magnetic circuit for a rotating apparatus having a parallel structure or a skew structure, the rotating apparatus being a rectangular wave generator or a rectangular wave electric motor, comprising:

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rectangular wave electric power generating means for generating a rectangular wave electromotive force and a rectangular wave signal with a discontinuous flow of a magnetic flux by eliminating a yoke which is a magnetic circulation medium between armatures and magnets;

spiral magnetic flux deriving means constituting a magnetic circuit which generates a spiral flow of a magnetic flux on rotation with the bodies of armatures or magnets having a twist angle of a skew structure;

mechanical dynamic force generating means having a rotation unit constituted with a plurality of armatures and a plurality of magnets in order for a rotor to be rotated by a rectangular wave alternate magnetic flux generated with input of electrical energy, and enabling parallel driving according to a required quantity of torque by constituting a plurality of the rotation units in row with respect to the shaft;

phase detecting means and position detecting means for obtaining a phase angle and position information according to a quantity change of a rectangular wave electromotive force generated by an armature of a different winding at a required position; and

direct current electric power generating means for generating a direct current electric power by collectively connecting rectangular wave electric powers of a plurality of armatures in a single phase manner.

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